On the immediate eastern slope of the ridge the rainfall and prevailing winds were as follows:

	Rainfall.	Wind.		Rainfall.	Wind.
	Ins			*Ins.*	
Saxon, Stokes Co	3.88	ne.	Linville, Mitchell Co.*.....	7.57	se.
Mountairy, Surry Co.....	6.02	.....	Marion, McDowell Co.....	6.78	e.
Ashers, Wilkes Co.....	7.01	se.	Morgantown, Burke Co.....	4.77	.....
Paterson, Caldwell Co...	8.00	e.	Skyuka, Polk Co....	5.61	se.
Lenoir, Caldwell Co.....	6.00	se.	Flatrock, Henderson Co.†...	5.75	.....

*On the crest of the Blue Ridge. †Near the crest of the Blue Ridge.

PENNSYLVANIA.

No special mention is made of the thunderstorm that passed from Pottsville to Trenton on the 7th, according to the New Jersey section report. It is very desirable that the severe thunderstorms that proverbially trouble New Jersey and the city of New York should be traced to their origin in the mountains of Pennsylvania. Probably this could be effected by a little special cooperation between the three section directors. It would seem as though New York City and New Jersey should, from this point of view, be studied in combination with eastern Pennsylvania as a special field for the development of thunderstorms. The prediction of such storms, even for a few hours in advance, could be made of the greatest value to a large number of people in Philadelphia and New York.

TENNESSEE.

The advancing mass of cold air that gave the Atlantic States their rains on the 7th and 8th is chronicled as a norther at Bolivar, Tenn., and in fact low temperatures and frosts prevailed extensively on the morning of the 8th. This reminds us that in 1871, in October and November, as the season approached for northers in the Gulf States, and we were about to experience our first efforts at their prediction, the Editor had occasion to announce as the result of considerable study of the descriptions of northers of Texas and the Gulf, that they must be considered as the advancing front of a shallow layer of cold air flowing from the upper Missouri valley southward to the Gulf. Therefore, they constitute the southern borders of the areas of high pressure and cold, dry, clear air. The first description and predictions of a norther in the Gulf of Mexico, November 28, 1871, was made in accordance with this view.

WISCONSIN.

The observer at Manitowoc records a zodiacal light appearing in the west between 8 and 9 p. m. on the 12th, at an altitude of 15°. Could this have been an auroral streamer, many of which were observed this month? In general the aurora is distinguishable from the zodiacal light by its oscillations in brightness and location and by the manner in which the light is distributed over the beam. Auroral streamers generally have quite sharply-defined edges and uniform brightness, whereas the zodiacal light has ill-defined edges and is brightest along its central axis. Regular observers of zodiacal light are much wanted by the astronomers, and those who contemplate such work should study the writings of Searle and others.

WYOMING.

The September report from this section contains the first official publication relative to the convention of Weather Bureau officials held at Omaha on the 13th and 14th of October. Section Director W. Palmer was present, and we believe that all will echo his statement—

That a very enthusiastic and profitable meeting was held. The Chief of the Weather Bureau was present and presided at the convention and the banquet.

LIGHTNING ON WIRE FENCES.

A correspondent of the Iowa Weather and Crop Service inquires of Mr. Sage how to construct wire fences so as to protect stock from the deadly effects of lightning that is frequently conducted many yards along the fences. Mr. Sage repllies in the Iowa Monthly Review for October, 1898, that so-called ground wires should be built into the wire fences.

A ground wire to be effective should have contact with every wire on the fence, and should enter the ground far enough to reach moist earth, or at least two feet below the bottom of the fence post; the deeper the better. In the construction of a fence the wires may be most easily sunken to the required depth in the bottoms of the post holes, before the posts are set, by the aid of a slender bar or pointed rod of steel. The contact with the fence wires may be made on the posts, and it would be well to have the ground wires long enough to allow the points to be elevated a few inches above the posts, serving as lightning rods. A good ground wire attached in this manner to every fourth post, where the posts are set a rod apart, ought to afford a large measure of protection. The cost of wire is trifling, and if the ground wires were placed two rods apart the expense of the labor and material would not be burdensome.

THE UTILIZATION OF FOG.

Mr. Herbert Earlscliffe of Santa Barbara, Cal., has communicated to the Weather Bureau, through the Chamber of Commerce of Los Angeles, a suggeston relative to fog that should call forth all the inventive genius of America. Mr. Earlscliffe says:

In California there are vast areas of valuable land where the water supply is insufficient. Nature has endeavored to correct this by sending in heavy fogs laden with moisture, and it only remains for the ingenuity of man to utilize this. These fogs generally come in from the ocean at night during the dry summer months, when most needed, but are dissipated early in the morning by the sun. Here is ample moisture brought to our very doors if we could but discover some simple and practical method of condensing or precipitating it on a large scale.

It certainly is tantalizing to think of this immense quantity of moisture present and visible but unavailable. Neither science nor art, at present, can suggest any feasible method of causing this fog to descend in refreshing drops of rain. On the other hand, the green vegetation at the summits of many mountains has often been observed to be due essentially to cloud or fog and not to rain; it may, therefore, be hoped that along the coast of California some device will soon be introduced that shall catch the fog particles as they float along and force them to trickle down in gentle streams of water so as to moisten the earth. We do not propose to condense or precipitate the atmospheric moisture in the ordinary sense of those words, but simply to catch it as the leaves of the trees do. We recall the so-called drip from every rock and twig on the summit of Table Mountain at Cape Town, and especially on the summit of Green Mountain in the Island of Ascension and the dampness of the rocks on Pikes Peak, and we can not doubt but that in many spots throughout the globe, vegetation is kept alive by the small amount of moisture that is caught on the leaves, and dripping thence to the ground is soaked up by the roots of the plant. In fact, there are several plants whose leaves and branches are so arranged as to facilitate drip and the collection of moisture by this process. What is needed by the agriculturist on the California coast is some simple mechanical arrangement by which the quantity of fog particles shall be intercepted as they flow past any given plant, and shall be forced to drip or glide downward into the ground at the root of the plant. Any fan-shaped arrangement of sticks or slats that increases the area exposed to the fog should apparently increase the quantity of moisture carried down to the roots. Mechanical devices, the explosion of dynamite, refrigerating apparatus and other analogous devices are likely to be too expensive in comparison with the return they make.